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IM- L IS A MILLION  
\*\*\*\*\*

June 1983

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Have you heard the one about the programmer that went to heaven. They sent him back because his name wasn't in the COMPUTER.

After that we can only get better. This months issue will be made up mostly of programs submitted by the members. By the time you get this we should be back from our vacation.

\*\*\*\*\*  
hey folks, I have a question for you.

In one of the programs in this months letter (HANOI), the programmer refers to the ability to do RECURSIVE programming and I hate to say it but that is a new one on me and if somebody out there could write and give me some of their knowledge on it I would appreciate it.

STUMPED

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For those out there with DISC'S.

I have been having 2 problems with my Floppies and I think I've resolved them and it might help you.

1. Fragmentation of data files when updating &/ adding data to a FILE on a FLOPPY with multiple FILES or PROGRAMS.
2. Destruction of DATA files on FLOPPY when mixing programs on same FLOPPY.

POSSIBLE SOLUTIONS: Now when I want a data file on the FLOPPY I write a simple program to build a blank file on the FLOPPY that is the maximum size I think I will ever need. This will keep it from fragmenting the data and so far I have not had any problems with mixing the DATA and PROGRAM FILES.

HERE IS A SIMPLE PROGRAM TO USE TO BUILD FILE.

```
10 DIM AS(299),FN$ (6)
20 FOR I = 1 TO 299: AS(I)="":NEXT
30 FN$=" "
40 INPUT "NAME OF YOUR DATA FILE",FN$
50 INPUT "NUMBER OF RECORDS WANTED",L
60 INPUT "INSERT DATA DISC AND HIT RETURN",Z
70 OPEN FN$N
80 FOR I = 0 TO L
90 PRINT #0;AS(0),AS(1#0),AS(2#0)
220 NEXT I
230 INPUT "DO IT AGAIN",AS(0)
240 IF AS(0)="Y" THEN CLOSE #0:GOTO 90
250 STOP
*****
```

\*\*\*\*\*  
Info from STACY PROWELL

Here is the way to get QUOTATIONS to print without using the CHR\$(34)...

Ex: to print PRESS "RETURN" you can type  
10 PRINT "PRESS "RETURN"

Also you can use a period in a variable name. Ex: A. is different from A or AA.

THANKS STACY

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```

19 CALL 17846
20 FOPEN 24570,72
21 PRINT " CASH REGISTER      "; PRINT : PRINT : PRINT : PRINT : PRINT "
22 PRINT : PRINT : PRINT : PRINT : PRINT "
23 FOR I=1 TO 200: NEXT I
24 CALL 17846: GOSUB 2490
25 I=0
26 CALL 17846
27 D=6174#  

28 D=8  A1(12
29 A1(1)=500.00
30 A1(1)=100.00
31 A1(2)=50.00
32 A1(3)=20.00
33 A1(4)=10.00
34 A1(5)=5.00
35 A1(6)=2.00
36 A1(7)=1.00
37 A1(8)=.50
38 A1(9)=.25
39 A1(10)=.10
40 A1(11)=.05
41 A1(12)=.01
42 PRINT " CASH REGISTER      "; PRINT : PRINT : PRINT : PRINT : PRINT
43 PRINT "PRESS AMOUNT TWICE TO GET TOTAL"
44 PRINT : PRINT : PRINT : PRINT : PRINT : PRINT : PRINT
45 INPUT "AMOUNT OF PURCHASE",P
46 MUSIC "02"
47 CALL 17846
48 IF P=0: GOTO 199
49 T=7#P
50 L#P
51 FOPEN 178
52 GOSUB 178
53 CALL 17846
54 PRINT USING "SUBTOTAL = ######.##",T
55 T=17/25
56 D=TAIR100
57 M= INT (D)
58 D=D-M: IF D>.49 THEN L=.81
59 TAIR=M*10000#L
60 T=7#T
61 PRINT USING "SALES TAX = #####.##",T
62 MUSIC "15101515"
63 PRINT USING "GRAND TOTAL = #####.##",T
64 INPUT "ENTER AMOUNT TENDERED",R
65 IF R>T: GOTO 586
66 IF R=T: PRINT "THANK YOU FOR GIVING THE EXACT CHANGE!": GOTO 199
67 C=H-T
68 PRINT USING "YOUR CHANGE IS #####.##",C
69 MUSIC "46"
70 PRINT
71 IF C>0 THEN I=I+1
72 IF I>12 THEN GOTO 466
73 MUSIC "47"
74 IF C>0 THEN PRINT USING "0000.##",&C:D=0#C-A1)
75 GOSUB 270
76 PRINT "THANK YOU FOR YOUR PATRONAGE!"
77 INPUT "ANOTHER PURCHASE (P=YES/NO)?",Z
78 IF Z=0 THEN GOTO 25
79 GOSUB 1916

```







```

1 REM *****SEE EDITR AT END OF PGW*****
2
3 :TOWERS OF HANOI IV.11
4
5 GOTO 1000: REM 00 TO MAIN
6
7
19 :SET ADDITIVE FOR ANY DSK
20 ON D GOSUB 21,22,22,23,23,24,24: RETURN
21 A=1: RETURN : REM DSK 1,2
22 A=2: RETURN : REM DSK 3,4
23 A=3: RETURN : REM DSK 5,6
24 A=4: RETURN : REM DSK 7,8
25
26 :SET SC-EC FOR ANY DSK ON ANY BASE
27 ON B GOSUB 41,42,43: RETURN
41 SC=15+AEC=20+H: RETURN : REM BASE R
42 SC=20+AEC=20+H: RETURN : REM BASE S
43 SC=20+AEC=20+H: RETURN : REM BASE C
44
59 :SET R FOR DSK 0 ON BASE B
52 R=H10: IF B=2 THEN R=R*3
54 RETURN
56
60 :PUT MIXED SHAPE (0,1,3,5,7) ON BASE
62 SHAPE =$1: PLOT SC,R1 SHAPE =$0: HLTW SCH1,EC=1,R2 SHAPE =$0: PLOT SC,R2 RETURN
63
64 :PUT FIXED SHAPE (0,2,4,6,8)
66 SHAPE =$3: HLTW SC,EC,R1 RETURN
67
68 :INPUT MOVE DISK1
70
72 :INPUT DSK 0 FROM 3(B$)
74 :SETB,B,1:SET A=SC-EC:FB=POV0
75 :FB=FB+T=BA1,B1: IF T10 THEN T=T+1
76 D=BA1,T1: GOSUB 20: GOSUB 40: GOSUB 52
80 :C=52*(A13)+SC*(EC+1)+H+1
82 :FOR P=1 TO EC: POKE P,128: NEXT
84 :INPUT BASE FB POINTERS
86 :D=0,T=H10,B1=7
87
88 :H=H10: D=0:GOSUB 729: REM PUT H IN H
89 :PREVENT D1070501701 (SELF PLAY ONLY)
92 :IF D1070501701 THEN T=H10: IF T0H THEN T=T+1
93 :IF BA1,T1>FB IF BA1,T1 THEN :CALL 17807:FB=FB
94
95 :PUT DSK 0 ON BA1,B1
96 :SET B1 ON A 0 (0 SET), SET SC-EC:FB: PUT D
97 :FB=T=BA1,B1: GOSUB 40: GOSUB 52: COLOR =H-1
98 :ON D GOSUB 62,65,62,64,62,65,62,66
102 :INPUT BASE TD POINTERS
104 :D=BA1,T1=1: IF T10 THEN T=T+1
106 :D=10,T1=7: RETURN
107
108
109 : HANOI MOVEMENT STACK
110
111 :SAVE :POKE H0, FB, TB, SB
112 :H0=H11,H1=FB=H2=TB=H3=SB
113
114 :H11,FB=H2=TB=H3=SB
115 :FB=H11,H1=FB=H2=TB=H3=SB
116 :H0=H11,H1=FB=H2=TB=H3=SB
117
118 :POKE 40960,2: POKE 40961,192
119 :PRINT "MOVE FROM BASE - TO BASE - ",B
120 FB=ASC (B$)-4+10:ASC (B$)=4+10:ASC (B$)=4+10:RETURN
121
122 :POKE 40960,2: POKE 40961,192
123 :PRINT "MOVE ",T," TO ",POKE 40961,192
124 :PRINT "FB TO ",T," POKE 925,TB:POKE 925,TB:RETURN
125
126
127 :MESSAGES DURING PLAY
128
129
130 :POKE 40960,2: POKE 40961,192
131 :INPUT MOVE FROM BASE - TO BASE - ",B
132 :FB=ASC (B$)-4+10:ASC (B$)=4+10:ASC (B$)=4+10:RETURN
133
134 :POKE 40960,2: POKE 40961,192
135 :PRINT "MOVE ",T," TO ",POKE 40961,192
136 :PRINT "FB TO ",T," POKE 925,TB:POKE 925,TB:RETURN
137
138
139 :MAIN FOR CONTROL
140
141 :CALL 17846
142 :DIM B9(2),B4(3,2),B4(3,6)
144 :INPUT BASE POINTERS FOR HANOI: B1,B2,B3,B4
145 :T=H10=H11,B1=1,T=H12=H2=H3=H4=7
146
147 :POKE 40960,2: POKE 40961,192
148 :PRINT "TOWERS OF HANOI"
149
150 :INPUT DISK AND START BASE
151 :RETURNS H0 & H=1,2 OR 3
152 :GOSUB 1142
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1 REM SUBMITTED BY GUY MILLER
2 REM PORE 24570,54; PORE 24570,36; CALL 17944
3 REM YR111
4 REM M111
5 REM EN111
6 REM QIN 7414,2811; QIN 04681
7 REM QIN 18140,541; QIN 281301
8 REM LET TDE FOR N PROGRAM 814/82
9 INPUT * ENTER * E - ENHANCED -- F -00 CANCEL ENTER -B- COMPRESSED --R- TO CANCEL-WHAT IS YOUR CHOICE*,E
10 PRINT * INPUT "WHAT IS THE DATE ",D1; PRINT
11 FOR D=1 TO 10 PRINT ;LINE P51; INPUT TDE,20
12 INPUT "HOW MANY LINE IN ADDRESS",N
13 NEXT E: S0200 400
14 IF T=1"YES" THEN S0200 500
15 IF D=1"1" THEN S0200 600
16 IF E=1"1" THEN S0200 600
17 IF E=1"2" THEN S0200 610
18 IF E=1"3" THEN S0200 620
19 D=27: PRINT TAB (10);: PRINT
20 PRINT TAB (10);"GUY MILLER"
21 PRINT TAB (10);"212 WESTERN SANTA FEAT"
22 PRINT TAB (10);"MOBESITO ,CA. 95354"
23 FOR S=1 TO 50 PRINT : NEXT S
24 FOR K=1 TO 50 PRINT TAB (10);TDE,20
25 NEXT K
26 PRINT C000 100
27 S020 400
28 INPUT "SALUTATION",S01; PRINT
29 L01H1: INPUT L01,800
30 IF L01,800="111" THEN L01=2
31 S020 420
32 ACTION : E01
33 T=0: PRINT TAB (10);: PRINT : PRINT
34 REM L01=1 NOT APPLICABLE NOW
35 FOR E=1 TO L01: IF YNC="YES" THEN PRINT (E,1);"
36 IF E=1 THEN T=0
37 IF L01,800="0" THEN L01,800=""
38 PRINT TAB (10);L01,800
39 IF L01,800="" THEN T=1: PRINT : S0200 500
40 T=0
41 NEXT E
42 PRINT TAB (10);"SINCERELY"
43 PRINT TAB (10);"GUY MILLER"
44 PRINT TAB (10);"MOBESITO,CA"
45 PRINT "#"
46 IF K=5 THEN REM: PRINT : INPUT "YOU WISH TO CONT. 1 NO OF N=0" THEN ENP"
47 PRINT : INPUT "COPY, ON OR NOT",Y0
48 IF Y0="0" THEN S0200 720
49 IF Y0="COPY" THEN Y0="TEST"
50 PRINT C01H1: RETURN
51 S020 400
52 REM ADD CHR(27); "F": REM AU TO CANCEL
53 REM COPY & CL (CHANGE) COMMAND WILL EXECUTE PRINT ER
54 REM HEADING LINES--80-89-100--LEFT MARSH LINES -450-570-ORIGINAL-(T=51).
55 REM SIGN OFF -640-650-
56 REM 331 END LET TER
57 REM SOME LINES ARE FOR MY USE--CHANGE OR DELET E AS DESIRED
58 REM OR FILE IN NEAREST DISPOSABLE SNAKE.
59 S020 720
60 PRINT CHR(27);"E": PRINT
61 PRINT CHR(15): RETURN
62 PRINT CHR(27);"F": RETURN

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Due to the cost of printing we must ask you again to limit your want ads to 10 lines. The cost of 25 cents per line for members and 75 cents for non-members is the same as is the limit of 32 characters per line. Ads will be published in the order received. any leftovers will be held till the next issue. Deadline for ads is the 28th of the month !!!!!!!! Here we go again. The want ads are for small programs or hardware, they are not intended for commercial use. The professional type rates have gone down so don't be afraid to ask again what they are. You can expect a pleasant surprise.

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